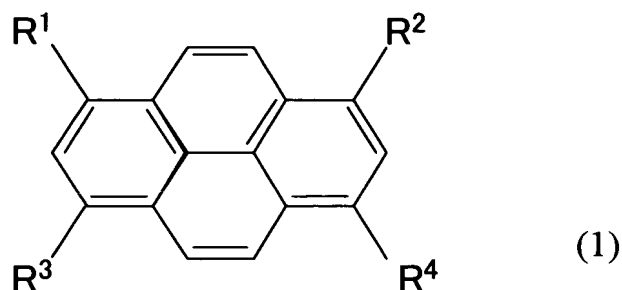
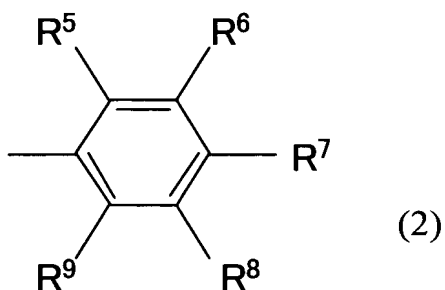


WHAT IS CLAIMED IS:

1. An organic electroluminescent element comprising:
a blue light-emitting layer that emits blue light provided between an anode and a cathode facing each other;
a hole-blocking layer provided in contact with the cathode side of the blue light-emitting layer, the hole-blocking layer restricting migration of holes from the blue light-emitting layer to the cathode side; and
an electron-transport layer provided in contact with the cathode side of the hole-blocking layer, wherein
the electron-transport layer includes an electron-transporting material and a light-emitting material having an emission spectrum peak wavelength of longer than 555 nm.
2. The organic electroluminescent element of claim 1, wherein an energy gap of the light-emitting material is smaller than an energy gap of the electron-transporting material.
3. The organic electroluminescent element of claim 1 or 2, wherein the emission spectrum peak wavelength of the light-emitting material falls in an infrared region.
4. The organic electroluminescent element of any one of claims 1 to 3, wherein the light-emitting material is at least one selected from the group consisting of
chloro[2,3,7,8,12,13,17,18-octaethylporphyrinato]iron (trivalent),
5,10,15,20-tetraphenylporphine nickel (bivalent), and
4-(dicyanomethylene)-2-methyl-6-(p-dimethylaminostyryl)-4H-pyran.
5. The organic electroluminescent element of any one of claims 1 to 4, wherein the light-emitting material is contained in the range of 0.01 to 50 vol % based on a volume of the electron-transport layer.
6. The organic electroluminescent element of any one of claims 1 to 5, wherein a material of the blue light-emitting layer includes a 1,3,6,8-tetrasubstituted pyrene compound represented by the following Formula (1):



wherein, in Formula (1), R¹ to R⁴ may be the same as or different from each other, and each represent a group represented by the following Formula (2):



wherein, in Formula (2), R⁵ to R⁹ may be the same as or different from each other, and each represent a hydrogen atom or a substituent, and at least one of R⁵ to R⁹ represents a substituted or unsubstituted aryl group.

7. The organic electroluminescent element of claim 6, wherein the 1,3,6,8-tetrasubstituted pyrene compound is at least one selected from the group consisting of 1,3,6,8-tetra(4-biphenyl)pyrene, 1,3,6,8-tetra(4-dibenzofuranyl)pyrene, and 1,3,6,8-tetra(4-dibenzothionyl)pyrene.

8. An organic electroluminescent display comprising any one of the organic electroluminescent elements of claims 1 to 7.

9. The organic electroluminescent display of claim 8, further comprising a color-converting layer that converts the blue light from the blue light-emitting layer into green

light and red light, wherein the organic electroluminescent display performs full color displaying.